

**Maryland Water Service, Inc.**  
**Highland Estates**  
**System I.D. # 0010049**  
**2008 Water Quality Report**

We are pleased to provide you with the 2008 Water Quality Report. This report is designed to inform you of the quality of water we delivered to you over the past year. Our goal is to provide you a safe and dependable supply of drinking water. We purchase your water from the City of Cumberland. Their water source is treated surface water obtained from the Lake Koon and Gordon reservoirs (*surface water*) located in the Cumberland Valley Township, Bedford County Pennsylvania. The primary tributaries supplying water to the reservoirs are Evitts Creek, Growden Run, Oster Run, as well as several unnamed tributaries.

The sources of drinking water (both tap and bottled) include rivers, lakes, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases radioactive material can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

How is water treated? Surface water treatment plants are designed to take a raw water source of variable quality and produce consistent high quality finished water. Multiple treatment processes are provided in series to remove turbidity in addition to removing and inactivating protozoan cysts and other microorganisms. Each process represents a barrier to prevent passage of cysts and other microorganisms. Each process represents a barrier to prevent passage of cysts and other microorganisms through the plant. At the City's water Filtration Plant, the barriers include chemical treatment, flocculation, flotation, filtration and disinfection.

**The Bottom Line:**

Last year your tap water met all drinking water standards with two exceptions – In 2006 Total Coliform Bacteria and in 2004 Lead was detected. As a result the distribution system was flushed and additional samples were collected and compliance was achieved for Coliform Bacteria. A Corrosion Study was completed in 2005 to determine the best technology to employ to address Lead. Under federal Law, the City is required to have in place a program to minimize Lead in your drinking water. The program includes corrosion control treatment, source water treatment and public education. The City has initiated corrosion control treatment to make it less likely that lead from household plumbing systems will dissolve into the drinking water. However, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Maryland Water Service, Inc. Highland Estates is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These byproducts include trihalomethanes (TTHM's) and haloacetic acids (HAA<sub>5</sub>). Drinking water containing these



byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. The City of Cumberland drinking water contains levels of TTHM's and HAA<sub>5</sub> x below the Maximum Contaminant Level set by the EPA.

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Source Water Assessment Plan: In accordance with the 1996 Safe Drinking Water Act Amendments, Maryland Department of the Environment and Pennsylvania Department of Environmental resources have prepared a Source Water Assessment Plan for the Evitts Creek Watershed. The Plan(s) evaluate the existing land use and water quality conditions, describe potential contamination threats, as well as providing background to support ongoing efforts to protect the watershed through the Evitts Creek Steering Committee.

If you have any questions about this report or your water utility, please contact customer service at 1-800-860-4512 or you can contact the City of Cumberland – Environmental Technician at (301) 759-6604 for additional information regarding the water quality results in this report. This information is also available at the City of Cumberland's web site at [www.ci.cumberland.md.us](http://www.ci.cumberland.md.us) We want our customers to be informed about their water utility. This report covers the period of January 1 to December 31, 2008. We have no regularly scheduled meeting.

Other water distributions system is your area include the LaVale Sanitary Commission (301)729-1638, Cresaptown Civic Improvement Association at (301)729-6981 and Allegany County Sanitary Districts at (301)777-5942.

#### Definitions:

- NA – not applicable
- \* Not more than one (1) positive sample if less than 40 samples are collected.
- \*\* Action Level: is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- \*\*\* Results for the 2004 Lead and Copper analysis are for the 90<sup>th</sup> percentile.
- Nephelometric Turbidity Unit (NTU): is a measure of water clarity.
- Treatment Technique (TT): is a required process intended to reduce the level of a contaminant in drinking water.
- Parts per million (ppm) or milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- Parts per billion (ppb) or micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
- Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
- P/A: Presence/Absence
- Standard units (S.U.) – standard units is a measurement of that particular regulated contaminant.
- Maximum contaminant level (MCL) - The maximum contaminant level is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
- Maximum contaminant level goal (MCLG) - The "goal" is the level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) set by the USEPA – is the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

#### **Disinfection By-Product Contaminants Pinto Distribution System (quarterly tests for the year 2008)**

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water (AVG)	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	No	30.3	23.6 – 40.8	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	No	29.2	19.3 – 49	N/A	60	By-product of drinking water disinfection

Cumberland Results Table

Parameter Regulated	Units	Cumb. WFP	MCGL (EPA's Ideal Goals)	MCL (EPA)	Source
Turbidity (max. monthly avg.)	NTU	0.05	NA	TT	Soil Run-Off
Turbidity (max. reported)	NTU	0.11	NA	1.0	Soil Run-Off
Total Trihalomethanes (avg)	Ppb	32.6	NA	80	By product of Drinking Water Chlorination
Total Trihalomethanes (range)	ppb	19 – 49	NA	80	By product of Drinking Water Chlorination
Haloacetic Acids (avg)	ppb	28.6	NA	60	By product of Drinking Water Chlorination
Haloacetic Acids (range)	ppb	18-36	NA	60	By product of Drinking Water Chlorination
Total Coliform Bacteria	P/A	A	*	*	Naturally Present in the Environment
Copper	ppm	0.27	1.3	1.3	Corrosion of Household Plumbing
Lead	ppb	3.0	0	15	Corrosion of Household Plumbing
Nitrate	ppm	<0.500	10	10	Run-Off from Fertilizer; Septic Tanks
Barium	ppm	0.040	2	2	Erosion of Natural Deposits
Cyanide	ppm	<0.0100	0.2	0.2	Run-Off from Fertilizer
Gross Beta (2006)	pCi/L	3.24	50	50	Decay of Natural and Man-Made Products
Fluoride (average)	ppm	0.97	4	4	Fluoride Addition
Fluoride (max reported)	ppm	1.14	4	4	Fluoride addition
Total Organic Carbon	n/a	MTT**	TT	n/a	Naturally Occurring in the Environment
Chlorine (avg.)	ppm	0.13	MRDL 4	MRDL 4	Water Additive Used to Control Microbes
Chlorine (range)	ppm	0.0-2.8	MRDL 4	MRDL 4	Water Additive Used to Control Microbes
Chloramines (avg.)	ppm	2.5	MRDL 4	MRDL 4	Water Additive Used to Control Microbes
Chloramines (range)	ppm	0.0-3.0	MRDL 4	MRDL 4	Water Additive Used to Control Microbes
<b>Unregulated</b>					
Ph (range)	S.U.	7.00-8.01	NA	NA	Naturally Occurring
Sulfate (2007)	ppm	11.3	NA	NA	Product of Water Treatment Process
Chloride (2007)	ppm	16	NA	NA	Product of Water Treatment Process
Hardness	ppm	86	NA	NA	Naturally Occurring
Sodium	ppm	6.1	NA	NA	Naturally Occurring

\*\*Total Organic Carbon TT was met through a waiver obtained from Maryland Department of the Environment for an alternative minimum Step 2 TOC removal or 40 CFR 141.135(a)(2) in consistency with all other National Primary Drinking Water Regulations.

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#### Testing Parameters:

The City of Cumberland analyzes its final drinking water for all parameters outlined in the National Primary Drinking Water Regulations: Confidence Report 40 CFR Parts 141 and 142 unless a waiver has been granted by Maryland Department of the Environment (MDE), Water Management Administration. The City also analyzes for many unregulated chemical compounds. The table above shows all of the contaminants detected in Cumberland drinking water between January 1 and December 31, 2008 as well as those contaminants detected over the past 5-years.

Because accurate test methods for detecting cryptosporidium at very low levels are not available, EPA does not require testing of treated drinking water unless concentrations in the raw water exceed 10 per liter. In a Filter Plant Performance Evaluation performed

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by Pennsylvania Department of Environmental Protection (PDEP) in January 2004, Cumberland's Water filtration Plant received a satisfactory performance rating for its ability to remove Giardia cysts and Cryptosporidium Oocysts.

**Water Conservation:**

Our water resources are not unlimited – they are affected everyday by precipitation, population growth, economic development and pollution. The most cost-effective way to protect your water resources is through conservation. For more information on water usage and conservation practices, please contact our office at (800) 860-4512 or the Cumberland Engineering Dept. at (301)759-6604.

In January 2003, the City adopted a Drought Contingency Plan in accordance with (PDEP) and a Water Conservation Plan to be consistent with (MDE) water conservation policies. Copies of the plans are available through the Cumberland Engineering Department.

Please call customer service at 1-800-860-4512 if you have questions.

We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future.

**2008 Violation Summary Table:**

**Violation Description**

**Start**

**End**

No drinking water quality violations were recorded during 2008.

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.